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10/538,611	06/10/2005	Eduard Willem Salomons	NL021440	8951

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EXAMINER
ADEGEYE, OLUWASEUN

ART UNIT	PAPER NUMBER
2621	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *12/15/2003*.
2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 16* is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) *1 - 16* is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on *12/15/2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☒ All   b)☐ Some * c)☐ None of:
      1.☒ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1.   Applicant's arguments filed 01/09/2009 with respect to claim 1 have been fully

considered but they are not persuasive.

In re page 11, applicants disclose that the output noted by the examiner is not an

output of the encoding device of the cited Lane reference.

In response, the examiner respectfully disagrees. Column 7, lines 33 – 55

discloses encoding whereas fig. 1 shows that the output of the encoder will be sent to

the head.

In re page 11, applicants discloses that the cited reference does not disclose

replacing the program clock reference stamps (PCR) by respective modified program

clock reference stamps (M-PCR) by scaling the program clock reference stamps (PCR)

using a scaling factor that depends on a ratio of an expected time between a video

presentation time stamp j and a preceding video presentation time stamp j-n and an

actual time between the video presentation time stamp j and the preceding video

presentation time stamp j-n, where j >= n>0, and the expected time is n times the

predetermined frame time.

In response the examiner respectfully disagrees. Lane discloses a scaling factor

(see column 11,, lines 45 – 48) that is a ratio of the presentation time stamp values (see

column 11, line 45 and column 13, lines 40 - 60).

In re page 13, applicants disclose that the lane reference only discloses time

base correction for trick play data. In response, the examiner indicates that there is no

where in the independent claims that above cited element is claimed.

Claim Rejections - 35 USC § 102

2.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3.   Claims 1 - 2, 5 – 9 - 11, 13 – 14 and 15 – 16 are rejected under 35 U.S.C. 102(b)

as being anticipated by Lane (US 6,031,960).

As to **claim 1**, Lane discloses a system for modifying a time-base of a digital

video stream; the system including an encoding device and a storage device connected

via a digital video communication system, and a decoder/renderer;

the encoding device including:

an input (104) for receiving an input video signal, and an input frame signal

(vsync) synchronous to and indicating frame boundaries in the input video signal (see

fig. 1 and column 3, lines 31 – 39);

an encoder for converting the input video signal and input frame signal to a corresponding digital video stream complying with a predetermined video encoding standard (see column 7, lines 26 – 32); the encoder including a encoder clock complying with the video encoding standard (see column 7, line 65 – column 8, line 4); the digital video stream including: a sequence of digital video frames corresponding to received input video frames (see column 3, lines 31 – 39); a sequence of program clock reference stamps (PCR) representing a clock signal of the encoder clock (see column 5, lines 14 – 19); and a sequence of video presentation time stamps (PTS) each associated with a respective digital video frame and representing a value of a counter driven by the clock signal at a moment of receipt of an input video frame that corresponds to the digital video frame (see column 5, lines 14 – 19); and

an output (television) for providing the digital video stream via the digital video communication system (see column 4, lines 64 – 67);

the storage device (digital VTR) including:

an input (VTR port) for receiving the digital video stream via the digital video communication system (see column 4,lines 64 – 67);

a time-base modifier (220) operative to:

replace in the digital video stream input to the storage device the video presentation time stamps (PTS) by respective modified video presentation time stamps (M-PTS) based on a constant predetermined frame-time between successive presentation time stamps (see column 4, lines 51 - 63);

replace the program clock reference stamps (PCR) by respective modified program clock reference stamps (M-PCR) by scaling the program clock reference stamps (PCR) using a scaling factor that depends on a ratio of an expected time between a video presentation time stamp j and a preceding video presentation time stamp j-n and an actual time between the video presentation time stamp j and the preceding video presentation time stamp j-n, where $j \geq n > 0$, and the expected time is n times the predetermined frame time (see column 4, lines 51 – 63 and column 9, line 19 - column 10, line 9) thereby forming a time-base modified video stream;

a storage (VTR) for storing at least a part of the time-base modified video stream; and

an output for providing a video stream from the storage device to the decoder/renderer (see column 4, lines 64 – 67); and

the decoder/renderer including an input for receiving a said part of the time-base modified video stream from the storage device and being operative to decode the video stream received from the storage device to enable rendering of the digital video frames in the stream synchronous with the respective associated modified video presentation time stamps (see column 4, lines 64 – 67).

As to **claim 2**, Lane disclose the system as claimed in claim 1, wherein the time-base modifier includes a clock unit operative to generate a clock signal locked to the received video presentation time stamps (PTS) using an error signal that depends on the scaling factor; the time-base modifier being operative to obtain the modified program clock reference stamps (M-PCR) by sampling a counter driven by the clock signal at a moment of receipt of the program clock reference (PCR) (see column 11, lines 20 – 35 and column 12, lines 44 - 51).

As to **claim 5**, Lane discloses th system as claimed in claim 1, wherein the digital video stream includes information on a nominal frame rate of the video signal and the time-base modifier is operative to derive the predetermined frame time from the digital video stream (see column 6, lines 61 - 65).

As to **claim 6**, Lane discloses the system as claimed in claim 1, wherein the input of the encoding device is operative to receive an analog audio signal; the encoding device further including a sampler for sampling the received analog audio signal under control of a sampling clock signal that is derived from the video input signal and locked onto the input frame signal (vsync); and wherein the encoder is operative to convert the sampled audio signal into a time sequence of corresponding audio frames and insert the audio frames and respective audio presentation time stamps (A-PTS) in the digital video signal stream (see column 3, lines 35 – 38, column 5, lines 14 – 19 and column 12, lines 44 - 51).

As to **claim 7**, Lane discloses the system as claimed in claim 6, wherein the time-base modifier is operative to replace the audio presentation time stamps (A-PTS) by modified audio presentation time stamps (MA-PTS) by scaling the audio presentation time stamps (A-PTS) using the scaling factor (see column 3, lines 35 – 39, column 4, lines 51 – 63 and column 11, lines 46 – 55).

As to **claim 8**, Lane discloses the system as claimed in claim 1, wherein the storage device is operative to time stamp each packet of the digital video stream on receipt of the packet; to store each time stamp in the storage in association with the corresponding received packet; and to output packets of the stored stream according to the respective time stamps and a predetermined delay (see column 14, lines 23 – 28).

As to **claim 9**, Lane discloses the system as claimed in claim 8, wherein the storage device includes a clock for providing timing signals and the storage device being operative to use as the time stamps stored in the storage the timing signal scaled using the scaling factor (see column 12, lines 6 - 11 and column 14, line 30 - column 14, line 34).

As to **claim 10**, Lane discloses the system as claimed in claim 2, wherein the storage device is operative to use as the time stamps stored in the storage a counter value from a counter driven by the clock signal locked to the received video presentation time stamps (PTS) (see column 13, line 35 – column 14, line 34).

As to **claim 11**, Lane discloses the system as claimed in claim 1, wherein the video encoding standard is MPEG2 (see column 3, lines 16 – 23).

As to **claim 13**, grounds for rejecting claim 1 apply to claim 13 in its entirety.

As to **claim 14**, grounds for rejecting claim 1 apply to claim 14 in its entirety.

As to **claim 15**, this is a method claim corresponding to the apparatus claim 1.

Therefore, claim 15 is analyzed and rejected as previously discussed with respect to

claim 1.

As to **claim 16**, this is a computer program claim corresponding to the apparatus

claim 1. Therefore, claim 16 is analyzed and rejected as previously discussed with

respect to claim 1.

Claim Rejections - 35 USC § 103

4.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

5.   Claims 3 – 4, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Lane in view of Yoo et al (US 6,973,258 B1).

As to **claim 3**, Lane discloses the system as claimed in claim 2. However Lane

does not disclose wherein the time-base modifier is operative to low-pass filter the

received video presentation time stamps and the clock unit is locked to the filtered video

presentation time stamps.

Yoo discloses wherein the time-base modifier is operative to low-pass filter the received video presentation time stamps and the clock unit is locked to the filtered video presentation time stamps (see column 5, lines 40 – 52).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added the low pass filter and the clock unit taught by Yoo to the apparatus of Lane to provide an apparatus for compensating time differences in PCRs of a digital data stream accurately (see column 4, lines 7 – 14).

As to **claim 4**, Lane discloses the system as claimed in claim 2. However he does not disclose wherein the time-base modifier is operative to low-pass filter the scaling factor.

Yoo disclose wherein the time-base modifier is operative to low-pass filter the scaling factor (see column 5, lines 40 – 51).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added the low pass filter and the clock unit taught by Yoo to the apparatus of Lane to provide an apparatus for compensating time differences in PCRs of a digital data stream accurately (see column 4, lines 7 – 14).

As to **claim 12**, Lane discloses the system as claimed in claim 1. However Lane does not disclose wherein the digital video communication system includes an isochronous communication channel for transferring the digital video stream.

Yoo discloses wherein the digital video communication system includes an isochronous communication channel for transferring the digital video stream (see column 3, lines 35 – 59).

It would have been obvious to one of ordinary skill in the art at the time the

invention was made to have added the isochronous communication channel taught by

Yoo to the apparatus of Lane to provide an apparatus for compensating time differences

in PCRs of a digital data stream accurately (see column 4, lines 7 – 14).

Conclusion

6.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any

extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later

than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to OLUWASEUN A. ADEGEYE whose telephone number

is (571)270-1711. The examiner can normally be reached on Monday - Friday 7:30 -

5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Marsha D. Banks-Harold can be reached on 571-272-7905. The fax phone

number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

03/29/2009
/Marsha D. Banks-Harold/
Supervisory Patent Examiner, Art Unit 2621
/O.A/